CLAIMS:

- 1. A rewritable optical record carrier comprising a substrate carrying a first recording stack of layers, which first recording stack comprises, in this order or in reverse order,
- a first dielectric layer,
- 5 a recording layer comprising a phase-change recording material,
  - a second dielectric layer, and
  - a mirror layer, composed of a mixture comprising aluminum as a main component or composed of a mixture comprising silver as a main component,
- characterized in that said first dielectric layer has a thickness d<sub>1</sub> in the range of 100 nm to

  200 nm, and said second dielectric layer has a thickness d<sub>2</sub> according to one of the following relations
  - a) when the mirror layer comprises aluminum

$$0.0225*d_2^2 - 2.6572*d_2 + 173.3(nm) < d_1 < 0.0225*d_2^2 - 2.6572*d_2 + 213.3(nm)$$

b) when the mirror layer comprises silver

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$$0.0191*d_2^2 - 2.0482*d_2 + 149.6 \text{ (nm)} < d_1 < 0.0191*d_2^2 - 2.0482*d_2 + 189.6 \text{(nm)}.$$

- 2. A rewritable optical record carrier according to claim 1, characterized in that said second dielectric layer has a thicknessin the range of 20 nm to 50 nm.
- 3. A rewritable optical record carrier according to claim 2, characterized in that said first dielectric layer has a thickness in the range of 110 nm to 150 nm, and said second dielectric layer has a thickness in the range of 25 nm to 40 nm.
- 4. A rewritable optical record carrier according to claim 3, characterized in that said first and second dielectric layers comprise a mixture of ZnS and SiO<sub>2</sub>.
  - 5. A rewritable optical record carrier according to claim 4, characterized in that said phase-change recording material comprises a mixture of Ge, In, Sb, and Te and that said recording layer has a thickness in the range of  $12 \pm 1.5$  nm.

- 6. A rewritable optical record carrier according to any of the claims 1 to 5, characterized in that it further comprises
- a spacer layer attached to said first dielectric layer, and
- 5 a second recording stack deposited on said spacer layer.
  - 7. A rewritable optical record carrier according to any of the claims 1 to 5, characterized in that it further comprises a dummy substrate disposed onto the first dielectric layer.